



life.augmented

How to configure windows to work with Teseo evaluation boards

ADG/Positioning – Marketing

v. 0.2 - May 2020



Contents

1	Introduction
2	Mouse pointer out-of-control
3	COM port number continues to increase
4	Documents & related resources



1	Introduction
2	Mouse pointer out-of-control
3	COM port number continues to increase
4	Documents & related resources



Customers have reported certain issues that occur with Windows® when Teseo3 evaluation boards are plugged into the PC:

- Mouse pointer moves erratically and is impossible to control
- COM port number continuously increases

Both the issues are related to Microsoft Windows and NOT the ST Teseo3 evaluation platform;

- For each issue, two solutions are proposed.



Contents

1	Introduction
2	Mouse pointer out-of-control
3	COM port number continues to increase
4	Documents & related resources



Mouse pointer out of control

- **Symptom:** Mouse pointer moves erratically and is impossible to control
- **Diagnosis:** It's a well-known Microsoft Windows issue (<https://support.microsoft.com/en-us/help/819036/overview-of-the-comdisable-tool>); Windows recognizes the Teseo3 evaluation board as a 'serial mouse'.
- The Microsoft serial-mouse driver takes control of the port (which is seen now as a mouse) and the mouse pointer becomes impossible to control.



Solution 1

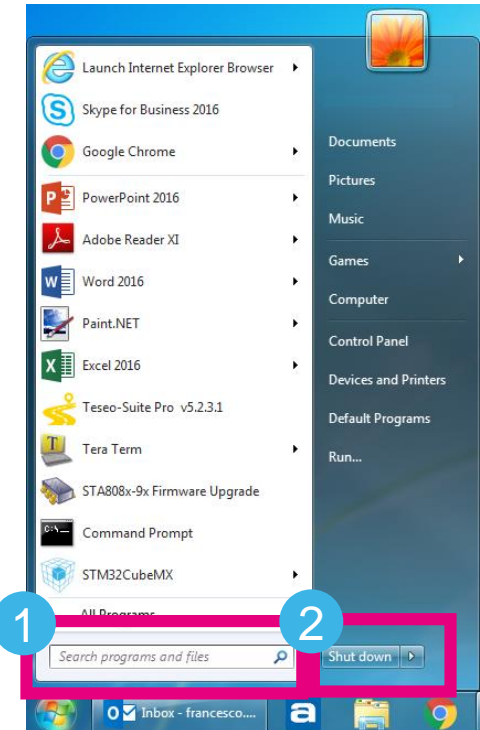
Disable the serial-mouse driver in the Windows Registry:

1 In the run-command entry, run the following command:

```
REG ADD "HKLM\SYSTEM\CurrentControlSet\Services\sermouse" /V Start /T  
REG_DWORD /F /D 4
```

2 Restart the PC

Note: The serial-mouse driver manages very old, legacy mice. So, even when disabled, standard mouse and touchpads will work without problem.





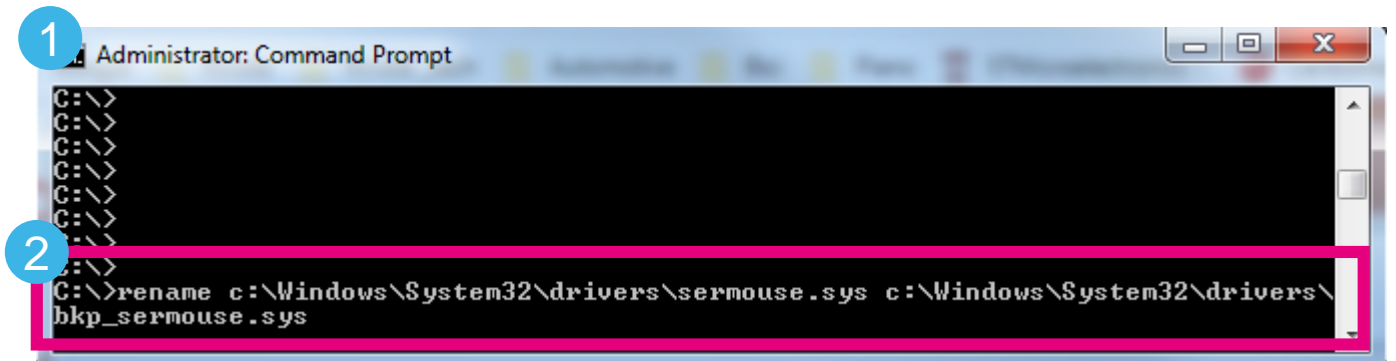
Solution 2

If Solution 1 doesn't work, rename the serial-mouse driver file:

- 1 In the Command Prompt, run as administrator the following command:

```
Rename c:\Windows\System32\drivers\sermouse.sys  
c:\Windows\System32\drivers\bkp_sermouse.sys
```

- 2 Restart the PC



Note: The serial-mouse driver manages very old, legacy mouse. So, even when disabled, standard mice and touchpads will work without problem.



Contents

1	Introduction
2	Mouse pointer out-of-control
3	COM port number continues to increase
4	Documents & related resources



COM port number continues to increase

- **Symptom:** When plugging and unplugging Teseo3 evaluation boards, the COM port number seen by Windows continuously increases.
- **Diagnosis:** Windows maintains the COM port locked and when a new evaluation board is plugged into the PC, a new COM port is instantiated. Restarting the PC will not free the COM port.



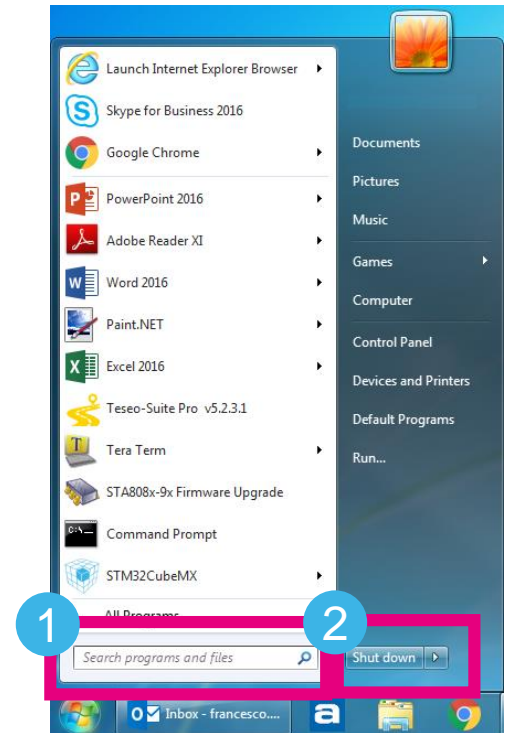
Solution 1

1 In the run-command entry, run the following command:

```
REG ADD "HKLM\SYSTEM\CurrentControlSet\Control\COM Name  
Arbiter" /V ComDB /T REG_BINARY /F /D  
0000000000000000000000000000000000000000000000000000000000000000
```

2 Restart the PC

This command frees all COM ports, resetting the counter to zero





Solution 2

If Solution 1 doesn't work, use the Windows Regedit tool:

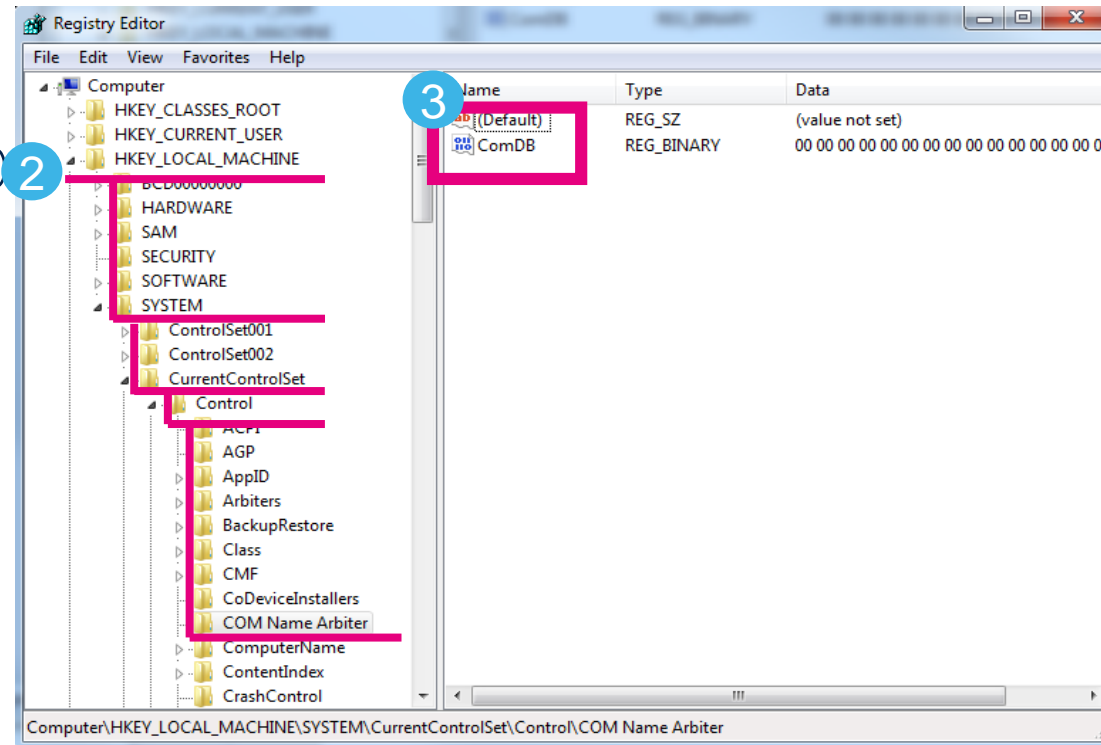
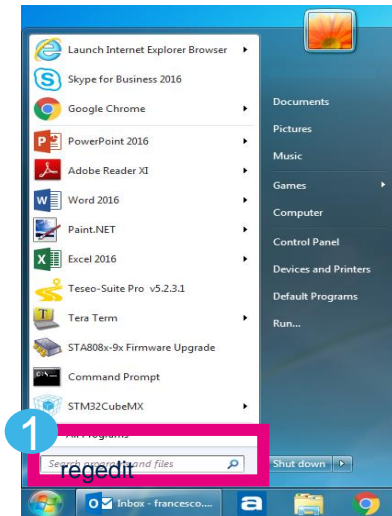
1 In the run-command entry, run 'regedit'

2 Follow the path:

HKLM\SYSTEM\CurrentControlSet\Control\COM Name Arbitr

3 Set 'ComDB' to:

00





Contents

1	Introduction
2	Mouse pointer out-of-control
3	COM port number continues to increase
4	Documents & related resources



Documents & related resources

All documents are available on:
www.st.com

- Teseo III: Webpage
 - Datasheet of all PNs;
- Teseo-Module: Webpage
 - Datasheet
- Teseo Suite: Webpage
 - Datasheet
 - Install program

GNSS ICs

ST's Teseo family of Global Navigation Satellite System ICs combines high positioning accuracy and indoor sensitivity with powerful processing capabilities, to simultaneously support multiple global navigation systems (BeiDou, Galileo, GLONASS, GPS, and QZSS).

Teseo III is the latest generation of GNSS ICs, and compared to Teseo II offers reduced power consumption, carrier-phase tracking for higher accuracy, and support for Ready-only Memory (ROM).

Our product offering includes standalone positioning chips (SAL) and configurable system-on-chips (SOCs). The standalone devices are offered with GNSS firmware embedded, to perform all positioning operations including tracking, acquisition, navigation and data output. The SoCs offer power processing and spare memory to enable customers and partners to easily and efficiently merge their code or specific IPs with ST's GNSS library to create a highly optimized platform.

Both solutions come with different package options and memory size, and are compatible with the TESEO-DRAIV sensor fusion firmware for dead-reckoning and assisted navigation.

Teseo devices address e-call and telematics systems, personal navigation in PNDs and handheld devices, as well as marine and in-car navigation systems.

Package	GNSS binary solutions (SAL)
WLDP17 4x4 mm	STAN00RCWS - Smallest footprint and lowest cost
	STAN00RCFSA - Stacked Flash, Automotive grade option available
QFN6 7x7 mm	STAN00RS - Low cost PCB design
	STAN00RSAT - Automotive grade
QFN6 6x6 mm	STAN00RGA - Wideband Flash QFN 6-Split, Automotive grade
	STAN00RGAAT - Automotive grade
	SoCs with GNSS capability (SOC)
8GA99 6x6 mm	
8GA109 9x9 mm	STAN00RCXGA

TESEO-SUITE

PC software tool to manage, configure and evaluate the performance of ST Teseo GNSS solutions in parallel.

Download Databrief

QUICK VIEW RESOURCES

ST TESEO-SUITE is a powerful PC tool able to manage all the capabilities of ST Teseo GNSS solution. It is able to manage GNSS solutions in parallel.

On each ST TESEO GNSS solution the Teseo Suite is able to read, modify and save the configuration.

NMEA sentences logging and analysis supported. NMEA message-list configurable per port.

Key Features

- Multiple GNSS tracer
- Multiple protocol support
- GNSS firmware configuration tool
- GNSS flashing tool
- Dead reckoning panel
- NMEA diagnostic tool
- Satellites signal monitoring viewer
- Map viewer
- Log viewer

RESOURCES

Quick Links

Technical Documentation

Product Specifications		
Description	Version	Size
DB3224 PC GUI software to control, configure and performance analyze of Teseo GNSS family	1.0	

Legal

License Agreement		
Description	Version	Size
SLA0056 Software license agreement	1.0	59 KB

EV3-T3

TESEO III evaluation board

Download Databrief

QUICK VIEW RESOURCES TOOLS AND SOFTWARE SAMPLE & BUY QUALITY & RELIABILITY

Teseo EV3 board is a complete standalone evaluation platform for Teseo III GNSS ST solution.

Teseo III embeds the high performance ARM46 microprocessor with dedicated SRAM and several serial communication interfaces, including USB, SPI, I2C, UART and CAN.

Performance and configuration can be analyzed using the ST TESEO-SUITE PC Tool.

Key Features

- ST Teseo III GNSS platform;
- Multiconstellation GNSS: GPS, Galileo, Glonass, Beidou, QZSS are supported;
- USB Power Supply and battery charge;
- Internal battery for standalone usage;
- ON/OFF and Reset buttons available;
- NMEA over;

RESOURCES

Technical Documentation

Product Specifications		
Description	Version	Size
DB3223 Teseo III GNSS evaluation board	1.0	137 KB